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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/329,258	06/10/1999	KLAUS BUECHER	076397/0124	7864

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FOLEY AND LARDNER
3000 K STREET NW SUITE 500
WASHINGTON, DC 200075109

EXAMINER

FORTUNA, ANA M

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 03/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/329,258

Applicant(s)

Buecher et al.

Examiner

Ana Fortuna

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 27, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 15-25 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 15-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-949)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 3 are rejected under 35 U.S.C. 102(b) as being anticipated by McDermott, Jr. et al. (5,147,541)('541). Reference '541 discloses the spiral wound membrane module having the core and sheath, the sheath is formed from polymer film or membrane which overlap one another , and have been fused to one another in the sealed or overlapped area (abstract, figure 3, column 5, lines 63-68, column 6, lines 1-30). Reference '541 discloses providing a folded membrane film with a spacer between the two membrane films and applying heat and pressure to fuse the membrane and spacer or backing material in the area of fold and also fusing in the area of aligned ends is also disclosed (column 6, lines 31-57). Regarding claim 3, the films disclosed by '541 has at least one functionalized surface, e.g. the film when heat is applied they can fuse to one another.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDermott, Jr. et al (5,147,541) and Fagundes et al. (5,073,263) and further in view of Mallouk et al 95,082,472. Reference '541 fails to disclose the membrane as coextruded film and the particular melting points. Melting properties between the membrane layer and spacer is required by '541 for the bonding with heat and pressure, to bond in the folded area and at the edges. Reference '263 is cumulative to show the spiral wound membrane module having spacers are over wrap and by pass screen and the screen fused to the outer wrap, and fused to itself in the overlap area (column 3, lines 1-68, column 4, lines 47). Therefore, it would have been obvious to one skilled in the pertinent art at the time the invention was made to provide an spiral wound membrane module with films fused to one another at their edges or in the area of fold or fused to itself by

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conventional heat or heat and pressure treatment. Using the fusing films as membranes or as wrap or overpass material is conventional as discussed in the present prior art discussed. Reference '472 further disclosed composite coextruded films containing two coextrude layers made from PTFE, and having fused layer capable of being formed in spiral wound configuration for separation purpose (abstract, column 2, lines 58-68, column 3, lines 1-9, column 9, lines 3-24, column 11, lines 19-28, column 11, lines 63-68, column 12, lines 1-5). Therefore, it would have been obvious to one skilled in the pertinent art to use the composite of '472 in a spiral configuration, and further form the spiral as suggested by '541, since '541 suggest membranes of polytetrafluoroethylene (PTFE) material. The specific melting points are not disclosed, but they are suggested by '541, by suggesting polypropylene and polyester as backing material, and by suggesting PTFE to different polymers forming distinct coextruded films (column 11, lines 63-68, column 12, lines 1-5).

Claim Rejections - 35 USC § 112

6. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are unclear as to whether the film represent the membrane or a wrapping layer and overwrap or screen on the wrap material.

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Drawings

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the film referred in the claims as element 910) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Conclusion

8. All claims are drawn to the same invention claimed in the parent application prior to the filing of this Continued Prosecution Application under 37 CFR 1.53(d) and could have been finally rejected on the grounds and art of record in the next Office action. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing under 37 CFR 1.53(d). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the

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statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana Fortuna whose telephone number is (703) 308-3857. The examiner can normally be reached on Monday-Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for regular responses, and (703)872-9311 for after finals.

Ana Fortuna

March 8, 2002



ANA FORTUNA
PRIMARY EXAMINER